

FLEET MANAGEMENT

CATERPILLAR JOB SITE SOLUTIONS

CASE STUDY



- CUSTOMER:** Cement Company
- SITUATION:** Aging fleet, decreasing productivity and lack of capital
- JSS SERVICES:** Fleet Optimization, Maintenance & Repair Execution, Fleet Management Services, Financial Design
- RESULTS:** Improvements in fleet and operational performance; reduction in expenditures and generation of capital

SOLUTION OPTIMIZES FLEET, IMPROVES PRODUCTIVITY AND REDUCES COSTS

THE CHALLENGE

When a global cement company was struggling with reduced productivity and increasing costs at its quarry, it turned to Caterpillar Job Site Solutions (JSS) in search of a solution.

The quarry was facing significant challenges with its aging fleet. Repair costs were spiraling and the site was experiencing poor machine availability. Equipment management requirements were outpacing the capabilities of the site's technicians.

Productivity was also being impacted by the poorly matched loading and hauling fleet and the site's inability to leverage technology. The quarry was running significant overtime to keep up, and high turnover of the site's equipment operators was impacting efficiency.

While dealing with these equipment and productivity challenges, the cement company was also facing some financial obstacles. A plan to invest in additional reserves and fixed plant improvements was impacted by a limited access to capital in spite of the company's strong cash flow. The goal was to drive these expenses to the operational side of the balance sheet.

THE SOLUTION

An assessment of the quarry operation and its equipment fleet, as well as development of an in-depth understanding of the company's challenges and goals, helped JSS develop a fleet management solution that addressed all of these challenges — and then some.

The solution optimized the fleet by:

- » Replacing a wheel loader and shovel with two larger wheel loaders
- » Rebuilding four of the site's five 150-ton trucks, updating them with current technology
- » Rebuilding a motor grader and water truck
- » Installing a new large dozer

The agreement includes the maintenance and repair of all of these machines.

To address the site's equipment management challenges, JSS proposed a Fleet Management Services agreement that includes an on-site technology and fleet manager. The solution leverages technology and provides operator training to help optimize the site's production. These increases in efficiency led to a reduction in the consumption of fuel and fluids.

The outcome of all of these fleet and operational improvements helped the company avoid \$10 million in capital expenditures while generating \$3 million in capital to be used to finance future investments in the site.



CATERPILLAR JOB SITE SOLUTIONS FLEET MANAGEMENT PROGRAM:

Caterpillar Job Site Solutions (JSS) Fleet Management program delivers whole lifecycle management of equipment fleets, including fleets of mixed brands. We can increase the availability of your equipment and improve efficiency and productivity, while at the same time minimizing the risk associated with your equipment investment through flexible financial solutions. JSS Fleet Management ensures you have the right equipment on site, so you can get the job done on time and on budget.

JSS offers a full suite of solutions and will work with you to customize a solution to meet your site's specific needs. Solutions can include offerings such as fleet evaluation and design, productivity analysis, operator efficiency studies, operator training, haul road optimization, stockpile and load-out management and performance management plans. Additional safety and sustainability solutions and training are also available.

THE RESULTS

SIGNIFICANT COST SAVINGS

The quarry's equipment owning and operating costs have been improved by a number of factors, including higher machine availability, a new repair strategy and gains in efficiency.

MITIGATED RISK

Thanks to more predictable operations and costs, 85 percent of the site's operational expenses are more easily budgeted. The plant is more consistently meeting its internal quality targets. And the flexibility of the contract structure minimizes risk.

IMPROVED MACHINE AVAILABILITY

Since bringing JSS on board three years ago, the site has experienced a 10 percent increase in machine availability in the last three years versus the prior three years.

SIGNIFICANT CAPITAL EXPENDITURE SAVINGS

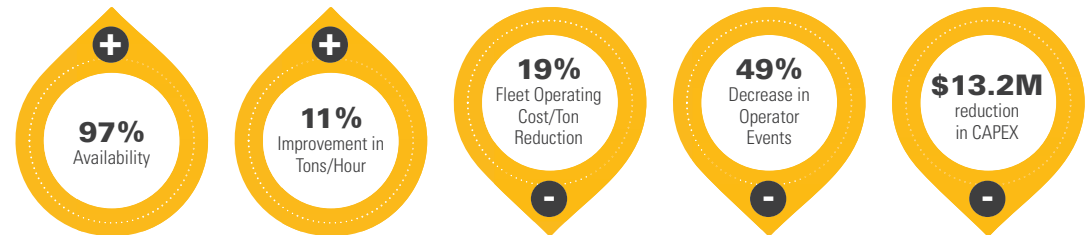
The quarry now has a virtually new equipment fleet managed through a services contract.

INCREASED OPERATOR EFFICIENCY

Optimizing the site's fleet and providing operator training have significantly improved the quarry's truck payload. Over the last 18 months, productivity has been increased from 490 tons per truck to over 600 today. We have technology and fleet monitors on site — managing the fleet and working alongside the customer to manage operator performance. These services have helped the site reduce operator events and errors by nearly 50 percent.

IMPROVED SAFETY AND SUSTAINABILITY

An added benefit of the site's solution has been an increase in safety and a reduced environmental impact. Program training has been tailored to specifically address near-miss issues. The machine rebuild program has led to the recycling of over 520 tons of equipment, and the site has enjoyed an annual fuel savings in excess of 100,000 gallons.



If you're interested in a more comprehensive solution that goes beyond Fleet Management, please refer to your Job Site Solutions representative or local Cat dealer. For more information, go to cat.com/catsolutions-jss.